

IN THE CLAIMS

Please cancel claims 1-25 and add the following new claims:

26. (New) A golf ball comprising a core and a cover, wherein the core comprises a solution blended polymeric composite comprising polybutadiene and at least one reinforcing agent.
27. (New) The golf ball of claim 26, wherein the reinforcing agent comprises nanoparticles having an average size of less than about 100 nm.
28. (New) The golf ball of claim 27, wherein the nanoparticles have an average size of about 1 nm to about 50 nm.
29. (New) The golf ball of claim 27, wherein the nanoparticles comprise silica-based nanoparticles or carbon-based nanoparticles.
30. (New) The golf ball of claim 26, wherein the at least one reinforcing agent is uniformly dispersed throughout the polymeric composite.
31. (New) The golf ball of claim 26, wherein the polybutadiene comprises about 75 percent or greater *trans*-isomer.
32. (New) The golf ball of claim 26, further comprising a second polybutadiene having a *cis*-isomer content of about 80 percent or greater.
33. (New) The golf ball of claim 32, wherein the polybutadiene has a *trans*-isomer content of about 70 percent or greater.
34. (New) A method of forming a golf ball having at least two layers comprising the steps of:
 - combining a polybutadiene in solution and a plurality of nanoparticles to form a first mixture;
 - evaporating at least substantially all of the solution from the first mixture to obtain a polymeric composite;

mixing the polymeric composite with at least one crosslinking agent to obtain a second mixture; and
forming the second mixture into at least one layer of the golf ball.

35. (New) The method of claim 34, wherein the step of golf ball of claim 1, wherein the step of combining further comprises blending a second polybutadiene in a second solution with the polybutadiene in solution to form a cement blend.

36. (New) The method of claim 35, wherein the polybutadiene comprises about 70 percent or greater *trans*-isomer, and wherein the second polybutadiene comprises about 80 percent or greater *cis*-isomer.

37. (New) The method of claim 35, wherein the polybutadiene has a first molecular weight and the second polybutadiene has a second molecular weight different from the first molecular weight.

38. (New) The method of claim 37, wherein the first and second molecular weights differ by at least about 100,000.

39. (New) The method of claim 34, wherein the step of combining further comprises provided a plurality of nanoparticles having an average particle size of about 0.5 nm to about 100 nm.

40. (New) The method of claim 39, wherein the step of combining further comprises provided a plurality of nanoparticles having an average particle size of about 1 nm to about 50 nm.